

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICE CURRENT.

"O fortunatos nimium sua si bona norint
Agricolae." VIRG.

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AGRICULTURE.

ADDRESS

To the Agricultural Society in Prince George's.
By T. LAW, Esq.—THEIR VICE-PRESIDENT.

I REGRET that my apprehension of the fall of our great staple, tobacco, has been realised, and that the prices of all agricultural productions have so declined, that we meet under much discouragement. The object of our Society, to benefit by augmenting production, I foresaw could not be attained, unless we were enabled to cause by profitable returns for crops, good irrigation, good barns, good stables, good implements of husbandry, &c. From the moment our circulating medium was reduced from 110,000,000, to 45,000,000, it was evident to my mind, that farmers would, inevitably, become great sufferers; I have, therefore, latterly deemed it my duty, to dwell upon the means to restore the middle class to prosperity, upon which we depend for consumption.

The long war in Europe, which commenced in 1792, prevented us from discerning our erroneous internal policy—nor until we were involved in hostilities did we discover, that by the increase of our paper circulating medium, though of a bad quality, and by the exclusion of foreign manufactures, we advanced with most rapid strides, notwithstanding armies and navies causing great destruction, without any production, and notwithstanding devastation by invaders, both of which may be computed at 40,000,000 of dollars per annum. It is unpleasant to hear us reciprocate congratulations at the prospect of another war in Europe: ought we to rely upon the calamities of other nations? Can the distresses of our fellow creatures produce any but a temporary suspension of our embarrassments? Ought we not rather to adopt some permanent system, to render us independent of the casualties and caprices of other nations, and for the exchange of our indigenous productions for those of other climes, that superabundance may be useful to all? As brothers, as moral beings, and as christians we ought all to wish for universal peace, to enjoy the advantages of amity.

The fundamental error in our financial system is, that we rely principally for a revenue upon the importation of foreign manufactures, the purchase of which withdraws from us the money required to keep our own citizens productively employed. Strange inconsistency!—the nation is to be impoverished as the treasury is enriched! Internal taxes have this superiority over duties—1st. the government is induced to make the people rich—2d. the money remains in the country, and is thrown again into circulation; but, when foreigners draw off the blood of the social system, industry is paralysed and inevitable decline ensues.

Cotton has fallen from 24 to 12 cents—say that the cost of producing amounts to 9 cents; the cultivator, at the first price, gained 15 cents per pound; and, at the latter price, only three!—think what a lamentable change, from 1500 to 300!—and consider, that cotton may fall still lower. The price of wheat is reduced from two dollars, to below seventy cents—the former price gave a profit of more than a dollar—the latter price causes a loss, unless the soil be very productive, and the season very favorable: my estimates may not be very exact, but are sufficiently so to cause serious uneasiness; and, I should hope, calm deliberation for a remedy.

If Congress had created a uniform national currency, as suggested by our late President, Mr. Madison, (whose wisdom and worth are universally acknowledged,) and, if it had subscribed to canals,

roads and bridges, and other improvements; that currency, thus thrown into circulation, would have reverted to the treasury for land, &c. It has pained me, to see the price of the public land lowered to \$1. 25, and claims relinquished, for land sold, amounting to 22,000,000, and the sales cancelled, and a loan created, and injurious retrenchments made—all of which might have been avoided, but for the reduction of our circulating medium above mentioned.*

During the war we saw canals, roads, bridges, factories, mills, and a variety of improvements made by individual subscriptions, because money supplied the means. Think how a five dollar note passes through five person's hands perhaps in a day, and repeats its vivifying operations three hundred days in the year—money, whilst kept, is unprofitable, and therefore is rapidly converted into some productive capital.

Two enlightened practical surveyors, (one of whom was lately a distinguished senator from Pennsylvania,) have shewn, that a canal communication may be completed from the navigable water of the Potomac, to Cumberland, for 2,500,000 dollars—and, to prove their sincerity, they engaged to accomplish this important undertaking for that sum. Their estimates of saving by conveyance of products, and of increased production, would make the national gain 33 per cent. Consider also the advantages of this communication with the interior, should the mouth of the Mississippi be blockaded by an enemy—I mention this canal particularly, because connected with our own state, and two neighboring ones. This government has resources enough, without borrowing, to cause immediately, by a good policy, four or five such facilities for the transportation of our grain, coal, lime, iron, slate, &c.—and for the saving of men, horses, waggons, and time. Public works are permanent memorials of the existence of a wise government; and benefit, for ages, the farmer as well as all other classes. Mr. Monroe, our judicious and upright chief magistrate, recommended, in one of his first communications, the raising of the price of our public lands. The nation possesses 400 millions of acres—but, to avoid the charge of exaggeration, I will admit only 200 millions; these at four dollars, would amount to 800,000,000 of dollars, and might, with ease, be converted into income, yielding im-

* Our population now increases above 500,000 each year—suppose the old states to retain one half, and that the remaining 150,000 go to the states and territories, where government land is to be sold, and that 10,000 of these purchase each 100 acres of land; the amount of acres sold will be 1,000,000, which, at four dollars will amount to - - - \$4,000,000
Suppose the inhabitants now in the states purchase the same quantity, - - - 4,000,000
Suppose, lastly, that men of fortune in the eastern states purchase for their sons one fourth as much, - - - 1,000,000
And European emigrants, - - - 500,000

This would amount to - - - \$9,500,000

Let the sales of the last five or six years be adverted to—but, if this calculation be even deemed excessive, let it be considered how rapidly the population increases, and how very soon it will be far below reality, should there be only money to purchase with.—Were there a sufficiency of money, it would be as easy to raise four dollars per acre, as during the present scarcity \$1. 25—land also becomes annually more valuable, as less remains every year to be occupied—few consider, that in a century our population will have increased ten-fold; and that unless this population have money to buy with, they must overflow the territories as squatters.

improvements similar to the canal of Languedoc, and canals in England, whilst the nation would be also benefiting. When there is a sufficiency of money, if property be secured by good laws, every kind of improvement will be introduced, and the middle class will increase—consumers will pay retailers—retailers will pay wholesale dealers—and the whole-sale dealers will pay manufacturers—and, all these will pay the land holder for food, clothing, fuel, hides, tallow, &c. This nation, in a century, will have a population of 100,000,000—whence is the requisite specie to come, if we injudiciously adhere to a specie basis?—how also are we to command it, and how are we to retain it? It has grieved me, to find my predictions realised, that the government would be compelled to borrow money, even for its very limited expenditures. Without money, importers giving bonds for duties cannot liquidate them—without money lands cannot be paid for. I pretended not to superior sagacity, when I quoted the old Roman axiom "*Ex nihilo nihil fit*." To avoid tedious details, permit me to recommend to your perusal Essays under the signature of Guatamosin, "The Farmers and Planters Friend,"—full of strong facts, and profound deductions.

I have termed bank notes a bad currency, because the borrowers relying upon a lasting accommodation, were ruined, when called upon, after 60 days, for curtailments, before their enterprises could enable them to reap any benefit: prior to the multiplication of banks, loans were made on bonds and mortgages, and the lenders were glad to continue them, if interest were punctually paid, and the same mode would be renewed, if the government's national notes were always kept in circulation.

It is said that specie is in plenty, although bills upon England are at eight per cent—this strange phenomenon I have investigated, and find, that the temporary influx of specie is from Europe, to pay for our stocks—but, that a reflux is commenced, and will increase as the importation of goods is augmented, to take back our specie—thus, as the government creates stocks, they are exported, and our debts, to foreigners, increase. A new class has lately appeared of money dealers and exchange brokers, who make a constant fluctuation of gold and silver. How different would have been our situation, if the Congress, after our war, had created a national currency—the rate of interest would have been so lowered, and the stocks would have so risen, that they would have been retained at home—and the middle class might have been producing 100,000,000 of dollars per annum more than they now do—and their consumption would have made agriculturists comfortable, if not rich. Few persons consider how ten manufacturers may support ninety other persons, supplying the manufacturer and themselves by mutual interchange. Money not only produces material, but intellectual riches. Authors, painters, engravers, paper makers, printers, book-sellers, &c. are all supported by money; and by post letters are conveyed, to

"Speed the soft intercourse from soul to soul!"

* It grieves me to learn, that the Post-Office Revenue declines, notwithstanding increased population.—If the establishment be reduced to make expenditure balance income, think what a diminution of pleasure by the relinquishment of intelligent and affectionate communications, of newspapers giving amusement and instruction. Our Post-Office establishment was heretofore our boast, jointly with the freedom of the press—if the number of newspapers and of letters sent diminish, there cannot be a stronger proof of impoverishment, and of decline into an ignorant, comfortless rude state of society.

In short, civilization, security, and all social enjoyments, are produced by money, which is as necessary for useful occupation, as water to circulate the wheels of machinery. Take away the circulating medium, and society must retrograde to the semi-barbarous state of barter.

The arguments which the petitioners for the remission of the 22,000,000 of dollars, from the purchasers of public lands, so successfully used, may be urged, with equal truth, by almost every land holder of the old states. Their people have been seduced away by the temptation of low priced lands—thus lands become scarce and dear, and our lands fall in value, and our manufacturers are forced away by the want of money.

The scenes of misery around us damp our energies, and impair our health—if we walk the streets of the city, the auctioneer's discordant bell announces the sacrifice of some wretches' property. If we visit the court house we are saddened, by being informed of the multiplication of suits, and of criminal cases; if we repair to Congress hall, we are humiliated by debates about defalcation of revenue, or about ruinous retrenchments—or about loans—or about remission of debts due to the nation. I assert, that all these painful circumstances are solely attributable to the diminution of our currency—permit me, in corroboration of my reasoning, to call your attention to a most important fact.

On the 3d of July, 1813, a guinea in England was worth £1 7s 8½d—and on that day the Bank of England notes, in circulation, amounted to £28,314,890 sterling—on the same day next year, guineas fell to £1 2s 4½d, although the Bank notes had increased to 29,592,900. The increase of paper money enabled manufacturers to employ more hands, and to export more goods to the continent of Europe, and to bring back precious metals. Had the parliament, under a mistaken idea, that the quantity of paper had driven away the specie, and become depreciated, ordered its diminution, industry would have been paralysed, and a dreadful shock would have been felt throughout the wonderful island. Contrast this conduct with our precipitate order to resume specie payments, and the two results: they ought to make a deep impression on our political economists. I could produce other facts, corresponding with these—for the same causes, *ceteris paribus* will always produce the same effects: the laws of God never fluctuate.

We have not suffered by drought, by pestilence, or by civil war, or by despotism, or by burthensome taxes—yet we are all impoverished, except a few stockholders and money lenders. It is exultingly announced, that one of our new states has increased in one year from 30,000 to 140,000—how is this occasioned but by emigration from old states? We boast of new states, created almost every Congress—Is it beneficial to the nation, to scatter our population over an extensive continent, and to drive our citizens from their vicinity to seaports, into the interior, a thousand miles from a market? England and Scotland, not larger than Virginia, contain a population exceeding all ours, spread over the United States—By machinery its inhabitants obtain work; equal, it is estimated, to one hundred million of hands. In our young country, whatever saves labor is more particularly desirable. Manufactures are capable of more subdivision of labor, and of more mechanism, and of more aid by water, steam, &c. than agriculture. Although that nation must consist principally

* The Waltham manufactory, near Boston, employ 300 persons, and makes 1,250,000 yards of cloth—which, if estimated at 20 cents per yard, amounts to 250,000 dollars: from this the price of freight, and of the raw material, must be deducted, and the remainder continues in the town and neighborhood.—If this Cotton had been manufactured abroad, and returned to us for sale, the balance against us must have been paid for by specie or stocks—"Ab uno disce omnes." Can we, by the latter mode, ever obtain accumulations of capitals? may we not be obliged rather to pledge our crops before hand, to pay old debts, and to receive a small advance just to relieve our necessities?

pally of a few land holders, and numerous vassals, which is merely agricultural, yet there is a sect amongst us adverse to manufactures—nay, such is their antipathy to them, that they write against rye coffee, by the same reasoning they would dissuade us from distilling our rye into whiskey. I have read in a newspaper, that shirts are now made by machinery, with ruffles complete. Ought we to prefer these, not to save our wives and daughters from trouble, but to promote commerce? I put this question seriously, because I have witnessed a preference of foreign articles, to those made at home, because it enabled foreigners to buy our staple.

To any one who would rather be supplied by goods from a foreign state, than from one of our own states, I say "utter not the anti-fraternal, anti-patriotic, and anti-self-interest sentiment; the increase and success of our fellow citizens, strengthens us by numbers, and by resources—they contribute to our revenue, and to our enjoyments—they repel invasion, and are ready to suppress insurrection. Can we benefit, by driving back to Europe 20,000 industrious intelligent, and useful men, who annually sought an asylum here, and who came to augment our intelligence, wealth, and comforts?—are you yourself enriched during the last six years? Go, re-peruse the valedictory address of our Washington, and magnanimously discard local bias, and farmers' prejudices—remember that true charity begins at home, and that infancy requires nursing and cherishing. The agricultural state is only one step beyond the hunting, piscatorial, or pastoral; the manufactural is essential for civilization and happiness—suspect not folly and baseness in those who differ in opinion with you, or that the representatives of the people would pass laws injurious to the general welfare—protection solicited is not a monopoly; for all may avail themselves of it." In two or three essays of the Guardian, a pardonable objection to manufactures, by unenlightened farmers, which then existed, was ably refuted; and the writer, to confirm his reasoning, gives the following anecdote: Louis the XIVth, on expressing his surprise, that the Dutch could resist such superior numbers; his minister replied—"Sire, you have driven away your protestant manufacturers, by the edict of Nantz, and your cultivators are pennyless, and cannot pay contributions for troops, tents, arms, ammunition, &c." That farmers should be ignorant and short-sighted a century ago, is not wonderful; but, that such a prejudice to the middle class, which consumes what the soil produces, should now appear, is most pitiable—Great suffering must plead my apology for these remarks.

* Very few persons calculate the superior advantages of a large capital, which enables the possessor to undersell those commencing with small capitals.—Say that A. had 200,000 dollars, in buildings and purchases of his own; and that B. has 50,000 employed on loan—and that each, by his sales, obtains 12 per cent.

A's account will stand thus—	
Received profit on sales on 200,000, - - -	\$24,000
Deduct family expences, - - -	2,000
Remains to increase capital, - - -	\$22,000
B's account—	
Profit on sales on 50,000, - - -	\$6,000
Deduct interest, - - -	3,000
Family expences, - - -	1,000
	4,000
Balance to pay off debt, - - -	\$2,000

Suppose large capitalists chuse to content themselves with three per cent, those with inferior capitals must be undersold. The large capitalist can also afford to give credit. If two nations started with equal means, equal laws, equal population, and equal climates, the expense of freight, &c. would be sufficient protection of manufactures—but I am convinced, from historical facts, and from reasoning, that since modern inventions, protection from foreign competition ought to be given in certain cases.

My disposition leads me to rejoice with those that rejoice—and, at this season, when all nature smiles, and hope ought to predominate, I should have been glad to find cheerful countenances, and to have joined in congratulations on the prospect of abundant harvests—but, of what benefit are they, when we can scarcely find a sale on any terms?

It would take up too much time were I to explain the numerous errors into which mankind have been led by influential writers.—The ancients deemed the mechanic arts and commerce disgraceful, and Aristotle recommends the exclusion of merchants and tradesmen from the rank of citizens—amongst the moderns, several system-mongers have arisen in political economy. In France, a preference to agriculture long prevailed, introduced by one Quesnay, and the most able men sided with him, under the denomination of economists. After this arose the mercantile system, with the view of bringing the precious metals into a country, by the balance of trade; hence voyages to discover gold and silver colonies, &c.—this indeed is only a branch of the general delusion which induced men to imagine that wealth only consisted of the precious metals.—Adam Smith first opened our eyes to the advantages of internal industry. We now are beginning to understand that all useful occupations produce wealth, and we now are beginning to understand that the bond of a well established free government, which preserves good faith, has an exchangeable value, and that the promissory note of that Government, convertible at the option of the holder into a bond, and receivable by a government in all payments to it, at the rate at which it was issued, has a similar exchangeable value—and we are now beginning to distinguish between the intrinsic and inferior value of gold and silver in ingots, to that given to them by government as coin; the former having a fluctuating value, compared with the fixed and stamped value.—On this copious subject I may during this summer, deliver my observations at large to the public.—I have here very briefly adverted to the necessity of promoting all descriptions of productive industry.—When all are encouraged, self-interest will make individuals prefer the most profitable occupations, and thus dearth from scar-

* The Waltham Factory, near Boston, used in 1819, 1400 bales of cotton, containing 3300 lbs. each—or 420,000 lbs. and made 1,250,000 yards of cloth, with 300 hands, 260 of which were females. The profit of the owners, it is said, exceeded twenty per cent—the cloth, if valued at twenty cents, amounted to \$250,000. Suppose 1000 such established throughout the United States, the produce would amount to \$250,000,000. It may be argued, that labour would rise—but on the other hand superior skill, superior tools, and low interest, would, in a great degree, if not totally, compensate for that; the owners moreover would be content with eight or ten per cent profit, if interest were reduced to four or five per cent. Competition is always beneficial by lowering prices. Think how this creation in the United States would employ thousands, and tens of thousands in various ways—when there is a sufficiency of money to set men to work, those well paid have a variety of wants, and consume more in every way. The farmer produces the materials, whether cotton, wool, leather, horn, dyes, &c.—and feeds the workmen who convert materials into use—surely it is most desirable to see industrious producers well supported, and enjoying the comforts of life. How contracted is the view of that farmer, who argues that all citizens now eat, and as mouths will not be multiplied, what benefit can accrue by increasing manufactures! I blush, to find that such short-sighted beings publish such sentiments; the prosperity of farmers in any country, may be calculated by the quantum of the middle class, compared with that of cultivators. Wars, and newly discovered products, may give a temporary partial benefit; but permanent prosperity must depend upon having a circulating medium not fluctuating, causing a fixed low rate of interest, and encouraging all kinds of improvements throughout the country—a plenty of able consumers, able and near markets, must make farmers wealthy.

city will produce cheapness by abundance;—thus we shall learn the all wise benevolent law of the Creator and Ruler of the Universe, that the individual's interest and the general interest, are one.—The landholder need not apprehend desertion of the soil—there is a natural preference to rural enjoyments and territorial independence. The merchant, the manufacturer, the soldier, the sailor, in short persons of all professions wish to retreat in the decline of life, to an estate—What a theme is before me! but I must refrain. In Maryland we only want the middle class to make farmers happy and prosperous; we have numerous rivers and streams, and a variety of advantages—yet, but for Baltimore, which has risen by commerce, our population would have declined. If exports diminish, we shall be poor indeed. We ought to produce our own silk and our own wines, oil, opium, and every other article congenial with our various soils and climates—but above all things, we ought to increase the middle class—to it we owe our freedom, our civilization, and all that is desirable.—The employment of women and of children in manufactures, as the Edinborough Reviewers observe, increases marriages in Great Britain, and augmented population too fast. Thank Heaven, we do not require schemes to discourage conjugal happiness.—We have a vast expanse of rich territory. We have the knowledge of the old world (which was slowly, expensively and difficultly acquired) to apply at once to our new world.

Our present distresses may produce a system permanently beneficial, as the torrents and convulsions of nature frequently discover mines and other hidden treasures—that our miseries may have that effect, is “a consummation devoutly to be wished.”—The idea of saving for posterity was first introduced by money; thus we are indebted to money, for the increase of capitals, the accumulation of which constitutes national wealth. To money we are indebted for our inventions.—Every age has produced men of genius, but they wanted encouragement, and could not transmit their discoveries as a legacy to future generations—and knowledge was buried with them. If there be a man who hates the comfortable enjoyments of a good house, of good food, of good furniture, of a good library, and of good clothing, and of a good garden, let him discourage what he terms luxuries. I like to see every thing rising around me; I wish to promote improvements and to make experiments, and to have money to subscribe to public works, and money to lend and to give away—poverty causes misery and crime.—Luxury and extravagances so much exclaimed against, will never injuriously increase, but under a corrupt government—I suspect not the representatives of our free people of profusion, but rather fear the extreme of parsimony to please popular prejudices—that they will attend to the landed interest, if we farmers state our situation and sentiments, cannot be doubted—our apathy hitherto has surprised me. On the best inclinations, and on the wisdom of Congress I rely.

I will not apologise for this apparent deviation from our agricultural pursuits; for if strictly considered, it will be found that my object is to promote the cultivator's interest. The Father of All in his bounty, so amply requites the industry of the cultivator, that one third or one fourth of his produce can maintain him—the remainder is given to support others, creating other things to gratify his wants by exchange—whether for corporeal or mental enjoyment.

My neglect on this occasion of agricultural information cannot be regretted, as our President has such superior theoretical and practical knowledge; indeed, it was my intention on this account, to have avoided all communications at this meeting, but I am anxious to behold prosperity once more.

Zeal for the public good resistless sways,
My heart still dictates and my hand obeys.

THOMAS LAW.

TOBACCO FLY.

The tobacco plants in this vicinity, during the past dry weather, have been much injured

by the fly, or bug. I have tried many things for their destruction—the most efficacious is snuff, or trash tobacco finely pounded and sown whilst the dew is on the plant—this entirely destroys or causes the fly to leave the bed, and being a powerful manure, adds to the vigour of the plant. If this is not generally known, it is worthy of publicity.

I am sir, your's, &c.

E. S.

West Friendship, May 21, 1821.

From the Massachusetts Agricultural Journal.

ESSAYS ON FLAX HUSBANDRY.—By S. W. Pomeroy, Esq. first Vice-President of the Massachusetts Society, for promoting agriculture.

ESSAY III.

Weeding is considered in Europe, and by good husbandmen in this country, as necessary to secure a good crop of flax, which is a very tender plant when young, and more easily checked in its progress by weeds than any other. It is not supposed to be injured by the clover and grass sown with it; on the contrary the Flemish farmers think them beneficial, by protecting the tender roots from drought and keeping the weeds under them. It should be carefully weeded when the plants are three or four inches high; they are not then injured by the labourer going barefooted over them.

CHOICE OF SEED.

That of the last years growth should be obtained if possible. The usual marks of good seed are, that it be plump, oily and heavy, of a bright brown color, sinking readily in water, and when thrown into the fire to crackle and blaze quick. A very simple method of trial is to sprinkle it thin between two pieces of wet paper, which plunge in a hot-bed or dunghill, and in less than twenty-four hours the proportion that will vegetate can be discerned, which should be ascertained in order to regulate the

QUANTITY TO BE SOWN.

On this head no particular directions can be given, as it depends on the various qualities of soil, goodness of seed, &c. The rule for seeding small grains is reversed; flax requiring to be sown thickest on rich soil, as not more than one stalk is wanted from a plant. In England and Scotland, never less than two, or more than three bushels to the acre is sown. Two and an half is the most usual portion. In Flanders and Ireland seldom less than three bushels are sown, except when seed is an object. Thick sowing is to obtain fine flax. In this country it will be important, at present, to sow at such a rate as will insure good crops of each; and experience only can determine the exact point.

If sown very thin, too many lateral branches will be thrown out; each producing a boll, or pod affording more seed, but shorter and inferior flax. If sown too thick, the plants will draw up weak, with a single boll on a plant, and, subject as our climate is, to heavy showers and thunder gusts, very liable to lodge: one of the greatest dangers a flax crop has to encounter. The commissioners for promoting flax culture in Scotland, considered it as practicable, and strongly recommended that the system should be so conducted, as to obtain good flax and good

seed at the same time. It is so viewed in Ireland, among the more extensive cultivators, except when wanted for fine linen, cambric, lawn, &c. Dr. Deane, in the “New England Farmer,” a work of great merit published some thirty years since, when flax culture was more attended to than at present, recommends from six to seven pecks. It is probable that six pecks is the least, and two bushels the extent that should be sown to obtain the most profitable results, till the demand for seed is considerably lessened. (11)

SOWING.

The seed should be got in as early as it is possible to prepare the ground. Dr. Deane observes that a slight frost after the plants are up will not injure them. For no crop is it more important that the seed should be equally distributed. Fortunately what has long been a desideratum is now attained. A machine for sowing small seeds broad cast, with perfect regularity, great expedition, and in any desired quantity, has lately been invented, and performs to great satisfaction. (12)

PULLING.

This should be performed as soon as the leaves begins to fall, and the stalks shew a bright yellow color, and when the bolls are turned a little brown. The seed will continue to ripen afterwards. When the flax is lodged it should be pulled immediately, in any stage of its growth, or it will be entirely lost; great care is requisite in sorting the different lengths and keeping them separate till after the flax is hauled or much waste will ensue in that process.

SAVING SEED.

As soon as the flax is dry enough to put under cover, the bolls should be rippled, as it is termed. A comb resembling the head of a rake but with teeth longer and nearer together, made of hickory or oak, is fastened upon a block, and the flax taken in parcels no larger than the hands can firmly grasp, is drawn through, and the bolls rippled off—attention to sorting at the same time should be continued. The bolls are to be riddled and winnowed immediately; spread thin on a clean floor or on sheets in the sun, and when sufficiently dry and beginning to open, threshed. By this method the foul seeds are completely separated with little trouble, and good clean seed is ready for an early market, often the best, without the use of expensive machinery to make it so.—Here the operations of the farmer ought to end! The PROCESS OF PREPARATION being

(11) The demand for linseed oil must increase with the population for some time to come, as there appear no indications that the PEOPLE will forsake their household deities, CLAPBOARDS and PAINT, till the soil is much more denuded of its timber; even in those districts where the roads and fields are encumbered with suitable materials for permanent, cheaper, and more elegant buildings.

(12) Bennett's Machine for sowing broad cast, a description and drawing of which is given in the Memoirs of the Philadelphia Agricultural Society, vol. 4, and Am. Farmer vol. 2, with ample testimony of its usefulness. It is pushed forward by a man like a wheel barrow, and will sow more than one acre in an hour, unimpeded by wind or light rain. They are for sale at Harrison and Earl's Repository for Agricultural Implements in the city of N. York, and Robt. Sinclair's manufactory of implements in the City of Baltimore.

foreign to, and unconnected with his other pursuits; and which has been the greatest objection to extensive flax culture. Can there be any reason why the farmer is to prepare his flax more than the hides of his cattle which he sends to the tanner? They are both chemical processes: and to dissolve the glutinous or resinous substances by which the fibres are attached to the stem without impairing their strength, is perhaps as critical and requires as much care and judgment, as to extract the animal juices from the hides, and fill the pores with tannin! In short, the flax grower and flax preparer and dresser should be distinct professions. They are said to be so in Flanders and Holland, and were extensively so in Scotland, where the farmer sold his flax on the ground, or in sheaves at his barn or rick.

The preparation of flax by steeping is very general in the great flax growing countries in Europe, but it is not quite finished in the water. It remains spread some days on the grass, which is necessary to render it soft and give that silvery appearance so desirable. The destructive process of *dew rotting*, is most commonly practised in this country, and when water is resorted to, it is at an improper season, and the process imperfect; which is the cause of its being so harsh and brittle. Perhaps no part of the system requires such an allowance for difference of climate. In the humid atmosphere of Ireland, it is not very material when it is spread, but in this climate, when exposed to a July or August sun, every drop after a shower, becomes a *burning glass*, and literally scorches the fibres; besides such a highly putrid fermentation as will then take place in the water, though it separates the harle more speedily, not only injures it, but communicates a stain that renders the process of bleaching much more tedious and expensive.

The flax should not be put into the water till about the first of October, and remain from 10 to 14 days, according to the temperature of the weather, and should be taken out before the fibres will separate freely, spread on the grass when the frost will very much assist the operation, and the flax exhibit a gloss and softness, that it is impossible to give it otherwise. The following method of preparing hemp will apply with great force to the point under discussion. During the late war an experienced ship-master in Connecticut, and who was also a good farmer, raised a crop of HEMP—as soon as it was dry enough to be stowed away, it was put under cover and remained till October; was then put into clear soft water, till the fibres would separate with some difficulty, when it was spread on the grass; the frost completed the operation, and when dry it was immediately secured.—There was no putrid fermentation to deteriorate the harle, nor was it mildewed by being exposed to the weather, and when dressed, exhibited that fine silver green hue by which the best Russian hemp is distinguished;(13) and when worked up, was pronounced by the rope makers to be equal to any hemp ever imported!

(13) The best Riga hemp, supplied for the British Navy, is prepared by steeping; during which it is shifted three times.

Here is a lesson for our western brethren, that is worth more to them than real mines of silver. Clear, soft, stagnant water is preferred in Europe. A canal, forty feet long, six broad, and four deep, is said to be sufficient for the produce of an acre of flax, at one time. It should be formed on a clay or some holding soil, where the water from a spring or brook can be conducted in with convenience, the expense would not be great, and on most farms suitable sites may be had. May not boiling or steaming be found the most advantageous process of preparing flax? The very superior samples of thread exhibited at Brighton in 1818, for which Mrs. Crowninshield, of Danvers, received a premium was spun from flax prepared by boiling! It appears by the "transactions of the Swedish Academy," that a method was practised in Sweden, of preparing flax to resemble cotton, by boiling it ten hours in salt water, spreading on the grass, and frequently watering, by which it becomes soft and bleached. Boiling or steaming will not appear very formidable or expensive when we examine the subject. A box twenty feet long, six feet wide, and four deep, well constructed with stout plank, a boiler from which a large tube extends into, and communicates with the water in the box, will boil the produce of a quarter of an acre in a day, that is, if we allow double the room to boil in that is required for steeping. A steam pipe instead of the tube, and having the top of the box well secured, would permit the process of steaming to go on. It is probable that by either method, grassing will be necessary to obtain soft flax. The yarns of which the sailcloth is made at Paterson, are all steamed. The navy board expressly forbid their being boiled in an alkaline lye, as is usual in most manufactures of linen. It is from this precaution that their canvas has the pliable, oily feeling, which so much recommends it. It should not be lost sight of, that by boiling or steaming much time and expense will be saved in bleaching.

We arrive at the final process, DRESSING, and in this our climate gives a decided advantage over Ireland, Flanders, or the north of Europe, where the flax is dried on hurdles over a peat fire, in ovens, or kilns, requiring great care in regulating the heat to prevent injury. All this trouble and hazard is obviated by our dry atmosphere and keen north-west winds. Dr. Deane estimated the expense of dressing flax by hand at one third the product. I believe the present price does not much vary from his estimate. A respectable gentleman from Dutchess county, New-York, informed me, that mills or machines impelled by water, have been erected there, that break and completely dress the flax for a toll of one tenth! It is said one or more of them are in operation in the western part of this state. These mills were invented in Scotland, and are now said to be brought to great perfection. They are erected in all directions, in the principal flax districts in Ireland, and notwithstanding the low price and limited demand for labour, are resorted to by the poorer classes of people, the dressing by hand being mostly abandoned. There are machines in England that dress the flax immediately from the field, without any preparation

whatever. An account of them may be found in the 5th volume of the Massachusetts Agricultural Journal. It appears, by the report of a committee of the house of commons, that in 1817, they were in successful operation. A man and three children impelled the machines and dressed sixty pounds a day. We have no information of any further improvements.—Should they be susceptible of the application of water or steam power, in any degree proportionate, the advantages may be incalculable, but, in the present enquiry, we place these machines, however desirable, entirely out of the question.

PRODUCT.

It is not uncommon in Great-Britain and Ireland to obtain eight hundred pounds of flax from an acre! Six hundred pounds is estimated, in some districts, as an average; but it should be observed, that little, if any seed, is obtained. The average crop in New England, as far as our information extends, cannot be estimated at more than two hundred pounds, or six or eight bushels of seed. (We do not include the rich bottoms on the Connecticut and some other rivers.) Dr. Deane was of opinion that four hundred pounds might be calculated on with proper management.

We think that four hundred pounds of good clean flax, and eight or ten bushels of seed, may fairly be assumed as a medium crop on favourable soils, where the culture becomes such an object as to make other farming operations subservient to it, and due attention is paid to change of seed.

Those who grow flax to any extent are of opinion, that the seed, at the price it has been for some years past, pays for all the labour bestowed on the crop to the time the flax is ready to be prepared or rotted.

If we are correctly informed, flax of a fair quality cannot be imported from Ireland for less than fourteen cents per pound. And the price of the best of Russia flax delivered on ship board at St. Petersburg, is ten and a half cents per pound. The quality called "twelve-headed" costs nine and an half cents on board.

The quality of flax raised in this country varies more than any other product; and of course the price, which is from six to eighteen cents. The medium about ten cents per pound.

It must be acknowledged, that no great exertions can be expected in the pursuits of any people, till "the prospect of reward sweetens their labour." And I anticipate the question that some may be disposed to ask, before they have finished the perusal of these essays Where is the farmer to find a market, if flax is extensively cultivated? We will ask where could the planter have found a market for his cotton if machines had not been invented for spinning it? And how could he have supplied it, if the labour of two thousand hands had been required to clean it of the seeds, that is now performed by the cotton gin invented by Whitney? We have shown that the expense of dressing flax has been reduced from one third to one tenth of its value;(14) and it is a fact

(14) The usual toll for ginning cotton in Alabama, we are informed, is one-twelfth.

well established, that there are now in the country, machines for spinning *flax*, that perform as well, and more expeditiously, except for the finer threads, than those for spinning cotton! The Paterson *sail cloth* is fabricated entirely from yarns spun and twisted by machinery, assisted by as little manual labour as cotton machines. In those manufactories are six hundred spindles. In the state of New York and in Pennsylvania about three hundred more are employed for *sewing thread, sheetings, bed-ticks, shoe thread, twine, &c.* The expence of labour, after the flax is hackled, in attending a machine of twenty-four spindles for spinning common shoe thread is *thirty-three cents* per day, spinning on an average twenty-four pounds a day, or one pound a day for each spindle! equal, it is said, to the production of a cotton spindle for five or six days!

Can any thing be wanting but the application of POWER LOOMS for weaving linen, to place the manufacture nearly upon an equality with cotton? And is there any doubt but they can be so applied?

The perfection of cotton spinning machinery, and the invention of power looms, with such improvements as are exhibited at Waltham, it is well known are about to produce an entire revolution in the India trade! If they can stop the *spindle* and the *shuttle* of the Hindoo, who is supported upon a handful of rice a day in a climate where little is required for clothing or shelter, what must be the effect of machines corresponding in the *linen manufacture*, upon the RUSSIAN and the GERMAN? There is probably at this moment, a million tons of American shipping clothed with Russian canvas! What, but the raw material of *good quality*, is required to elicit CAPITAL, to manufacture in our country sufficient for this supply immediately, and in a few years even to compete with European nations in the linen market?

The exportation of linen from Germany to North and South America, has been, and is at present, of vast amount! The single province of Silesia has sent in one year to Hamburgh and other ports, linens to the value of nearly five millions of dollars to be shipped, by the circuitous route of Cadiz, to the Spanish colonies.—These customers are at our doors. The United States possess the "GOLDEN GATES of this commerce," and with exertions well directed to her agriculture, Europe will be obliged to surrender the keys.

Brighton, 27th March, 1821.

FOR THE AMERICAN FARMER.

General Meeting of Delegates of the United Agricultural Societies of Virginia.

EXTRACT FROM THE JOURNAL JUNE 11TH.

At a general meeting of Delegates of the United Agricultural Societies of Virginia, held on the 11th and 12th of June, 1821, at French's tavern, in Petersburg—Present

Philip B. Thweatt	} Delegates from the Agricultural society of Prince George.
Wm. A. Harrison	
Edmund Ruffin	
Richard Eppes	} of Sussex
William Harrison	

Richard Cocke	} of Surry
Richard Field	
Roger A. Jones	
Benjamin H. Rice	
Thomas Robinson	} of Petersburg
Daniel C. Butts	
Thomas Field	} of Dinwiddie
Edw. L. Pegram	
Arthur Smith	of Isle of Wight

Report was made of the adoption of the amendment to the 11th article of the constitution, (recommended at the last meeting,) by the Societies of Prince George, Sussex, Surry, Petersburg, and Isle of Wight; which, forming the requisite majority, the amendment proposed is therefore a part of the constitution. The 11th article as amended, reads thus, "*The Delegation shall have the power of offering and adjudging premiums, and of alone deciding what communications shall be published, &c.*"

Several agricultural papers were received from the societies, which were read, and ordered as heretofore, to be transmitted to the other members of the association.

A communication from John Taylor of Caroline, addressed to the presiding officer of the Delegation, was read; whereupon it was

Resolved unanimously, That the secretary shall cause to be published in the pamphlet form, 500 copies of the letter of John Taylor, "On the Necessity of Defending the Rights and Interests of Agriculture," and distribute the same among the societies composing this Union.

The following resolutions were submitted and read; and after being referred to a committee and reported, were unanimously adopted:—

Resolved, That the only proper end of duties on importation, is the collection of revenue, for the support of government.

Resolved, That whenever the duty on any commodity has been so increased, as to diminish its importation and consumption, the burden of taxation is thereby made more heavy, without a corresponding benefit accruing to the treasury.

Resolved, That duties increased in rate so much as to prohibit importation, are thereby rendered as oppressive as possible to the people, at the same time that the revenue before derived from a lower rate, is totally destroyed.

Resolved, That the high rate of the existing tariff, adopted in 1816, for the encouragement of manufactures, causes it in very many cases to be unproductive of revenue, and yet oppressive to the people.

Resolved, That the agricultural interest, which furnishes the great mass of consumers and tax payers, is subjected to the most considerable evils arising from this policy, and is most interested in their abatement or removal.

Resolved therefore, that a committee be appointed to prepare and lay before the next general meeting of Delegates of the United Agricultural Societies of Virginia, a memorial to the Congress of the United States, praying for such reduction of the tariff of duties, as will remove the restrictions on commerce, add to the revenue of government, and increase the comforts of the people.

JUNE 12th.

Resolved unanimously, That a committee be appointed to enquire what has been, and what is likely to be the effects produced on the agriculture of the United States, by the navigation laws which prohibit the trade between this country and the British West Indies—or any other act or acts of Congress for the encouragement or protection of the navigation or commercial interest; and that the committee report thereon, to the next meeting of the Delegation a memorial to congress on the subject, if in their opinion it be expedient.

Resolved, That a committee be appointed to enquire into, and report to the next general meeting, on the subject of premiums for the improvement of agriculture—the advantages and disadvantages which may have been found to attend them, and the course which may be deemed expedient for the Delegation to pursue for the purpose of fulfilling this part of their duties, as enjoined by the constitution.

Resolved, That the contribution from the societies for the present year, shall be fifty cents for each member, to be paid to the treasurer of the Delegation at the December meeting.

After discussing and deciding on other propositions, and appointing other committees for preparing the regular business of the next meeting, the Delegation adjourned.

RICHARD FIELD,

Vice President of the Delegation.

EDMUND RUFFIN, Sec'y.

For the American Farmer.

DESTRUCTION OR PREVENTION OF THE CUT WORM.

Mr. Skinner,

A letter from Mr. Minor of Orange, detailing the result of a fall-fallow for the corn crop, has particularly attracted my attention. The subject is of great importance to agriculture; and as Mr. Minor appears desirous to ascertain, whether corn, following wheat, will be exempt from the worm, I feel induced to give him the result of five year's experience on that point, and shall be happy if the communication be serviceable to himself or others.

In the spring of 1816, I broke up a fine even sward, principally of blue grass, deep and well. After harrowing and laying off in the usual way, the corn was planted in the month of April. The cut-worm commenced its ravages as soon as the plants appeared above the surface; and scarcely one was left to show what the crop might have been. On the 21st of May, I began to re-plant, but my time would have been more profitably employed in ploughing and harrowing the field, for this labour also was lost. In June, the field was replanted a second time, and this effort was so far successful, that the crop would probably have yielded three or four barrels per acre, but for an untimely frost.

Admonished by this severe, but salutary lesson, I determined to try the effect of fallowing in the fall. Accordingly, about forty, out of forty-five acres, in a field destined for my next year's crop, were broken up in the fall of 1816. This also was grass land, but I do not recollect whether the burthen of grass was considerable.

The residue was not ploughed until the ensuing spring; and the difference in result was alike striking and satisfactory. On the five acre piece the worm abounded, whereas it was rarely to be seen on the other part. In the same spring I listed a small piece of 25 acres, which had been in wheat the preceding year. This likewise escaped the devastations of the worm; but the labour of reducing the baulks was excessive. It was my first attempt at listing, and I believe will be the last. This process may answer well upon light or worn lands, but is intolerable upon a strong, well improved soil. From the observations of that year, I concluded that the most effectual mode of counteracting the cut-worm, was to break up a stubble field in the fall of the year preceding its cultivation in corn. Subsequent experience has confirmed that conclusion—for my crops have never since been injured by this cause.

I have been told of several cases in which the worm has committed serious depredations, even after a fall ploughing; and have generally satisfied myself with the supposition that it was owing to imperfect work. In Mr. Minor's case, this does not hold; for there the fall fallow, though well executed, failed of success. To what can this failure be ascribed but to the luxuriant growth of clover, turned under by the plough? A stubble field presents no such attraction for the sagacious parents of these marauders. It strikes me also that this burthen of clover may have acted *mechanically* in the preservation of the insect. Vacancies were left, which furnished habitations, while the undecayed vegetable matter supplied abundant stores of food. Not that I suppose these animals existed, during the winter, in the state which they exhibit, when they give such painful proofs of their activity; but they were sheltered in the *crysalis*, or some other form, from the severity of the winter, and were able to commence their ravages at an early period of the spring.

The rotation of crops, adopted by your correspondent is admirably suited to the improvement of exhausted land—but, I should conceive, not well adapted to lands so much improved as his must unquestionably be; and one, not the least of its disadvantages, is this very evil of the cut-worm.

For several years I have pursued a course of crops, in which corn is always preceded by wheat; and I am now, more than ever, persuaded of its good effects. In a paper presented to the Agricultural Society of Virginia at their session in December, 1818, my humble reflections on a proper rotation of crops, were respectfully submitted; and the advantages of the eight field system, in which this *desideratum* among others is attained, were particularly detailed. Should Mr. Minor think it worthy a perusal, he may find it in the "Enquirer" for January, 1819.

THOMAS MARSHALL.

OAK HILL, FAUQUIER, June?
29th, 1821. }

FOR THE AMERICAN FARMER.

RURAL ECONOMY—No. IV.—AND LAST.

Manuring—the Cultivation of Wheat.

BEFORE entering on the subject particularly intended for this day's work, I shall, as usual, take the liberty of indulging myself in a few general observations. It is a very prevalent opinion, that the Farms in Virginia are generally too extensive for their proprietors to attend to them, even in a tolerable manner—and, that this circumstance, added to the existence of negro slavery, is the cause why we are so far behind the Pennsylvanians and New-Englanders in agricultural improvement—and that two or three hundred acres is as much as one man is competent to manage, or should possess. These sentiments I think are intirely erroneous. A Farm, it is true, like every thing else may be too large, as well as too small. Ten or twenty thousand acres would be more than enough for the personal inspection of the most industrious and persevering man that ever lived. Much, in that case, would have to be left to the entire agency of SUBS, too little interested, or too ignorant, either to plan with judgment, or to execute advantageously the directions of the employer. But Farms of this, or any thing like this size, are few in number. The most common extent of the possessions of the first class of land-holders in the state, is from 500 to 1000 acres. Were the area of our whole territory from the Atlantic to the Pacific—from the Mexican Gulph to the Canadian Lakes, subdivided into farms of precisely fifty acres, and each owned and occupied by an industrious family, we might aggregately be richer and stronger—we might maintain large fleets and armies—we might idolize a monarch, and attain an elevated position on the ladder of national glory and renown; but, individually, we should be far less happy than we are at present. If we must be circumscribed in our possessions, to what is barely sufficient to support life, of what use is our almost unlimited extent of country? and what advantage have we over the inhabitants of the old world? Would the republicanism of Americans extend so far as to tolerate an Agrarian law? Human nature would have to undergo a very thorough and radical change before a general equality could exist in any thing. It is as impossible for a nation to consist altogether of paupers as of grandees. To be all learned would be attended with as much inconvenience, as to be all fools. It is an old and very just saying, that it takes a great variety of characters to constitute a world—rich and poor—wise and ignorant—freemen and slaves. And more than this, it would be very easy to prove that a rogue is as necessary a member of society, as the "noblest work of God"—an honest man. If then it be conceded, that the possession of large estates be not detrimental, either to their occupants or to the community, so far from complaining, or squandering them away as endless sources of trouble and vexation, we should endeavor to improve them for our own use, and carefully entail them on those, in whose welfare we feel the most interest—our immediate descendants. And can it be supposed, that an active, industrious, and intelligent man, whose attention is paid exclusively to that profession, from which alone he derives his support, is not capable of managing 500 or 1000 acres of land? With double the force, necessary for the cultivation of 50 acres, 100 may be tended equally well, and equally as easy. There cannot be any perceptible difference in the personal attention necessary for either. That large estates are not generally managed as well as small ones, is no argument in favor of its impossibility. If it ever has been done in a single instance, it certainly may be done again. The occurrence, so far from having never taken place, or being very uncommon, is very frequent, when farmers, with some thousands of acres under their care, make as much per acre, by the labor of negroes, as the most economical Pennsylvanian with an estate of only one or two hundred acres, worked by white men. As growers of wheat, I shall only mention Henry Turner and Warner Washington,

esqrs. in the Shenandoah Valley, who, with many others, raise in extensive fields from twenty to thirty bushels to the acre. The latter of those gentlemen I see, by the American Farmer, has obtained, on a select spot, the enormous product of fifty-five bushels per acre! As Corn planters, Col. Taylor and Mr. Waring, of the Rappahannock, are probably as successful as any in the world. Ten barrels, with them, is by no means an extraordinary yield from each acre. A very few of the most distinguished farmers in Pennsylvania, ever make, I am told, more than an average of 30 bushels of wheat, and a still smaller number, as much as 50 bushels of corn to the acre! But, suppose they make a great deal more—suppose that on ten acres of land they make 60 bushels of wheat, and on the same quantity of ground 100 bushels of corn to the acre; the whole grain crop would amount to 600 bushels of wheat, and 200 bbls of corn. Such a farmer might be a contented, worthy man, beyond all danger of starving; but could he ever calculate on raising a large family to opulence—to distinction in mental acquirements—to that elevated summit of preferment, which is the aim, the end in view—the most stimulating inducement to all worldly exertion? And yet the ten acre field system has some strenuous advocates! If we make a little less to the acre, we make more in the whole; they likewise cost less in proportion to what is made; at the same time our slaves are generally better fed and clothed, and after all, more contented and happy than any labouring poor in any part of the whole habitable globe—as much so, it is believed, as the feudal vassals of ancient Europe, and incomparably more so, than the present tenantry of Great Britain. The lands in Virginia were originally as good, I presume, as they were in Pennsylvania, or any of the Atlantic states. They are now, in improvement, taking them aggregately, far in the rear of most of those eastward of us.—This has been brought about, not abstractly, either from the overgrown inheritances of land or negroes. It has proceeded from the delusive idea consequent on such princely possessions, that their owners were placed absolutely beyond want, and that they might spend at least their own lives, in ease, affluence and luxury, without the smallest personal attention whatever. Man, when he can live without labour, is not very apt to resort to it.—The necessity of exertion to health and existence, is a curse entailed on us, which we still as earnestly deprecate, as the head of a snake does a woman's heel. But enough of this—One thousand acres I shall take as the most desirable size of an estate for one man; on which there is sea room, sufficient to exert himself to the utmost, with the well grounded hope of weathering the storm, and of being safely moored in the harbour of his wishes. To work this properly will require ten men—fifteen horses—and two or three yoke of oxen. The arable land should be layed off into three fields; one half of each may be tended in corn, and the remainder fallowed for wheat, after harvest. By this plan one sixth of the land would be in corn, and one third in wheat every year—it would, consequently, be cultivated once in six years in corn, and once in three in wheat; but, should any particular circumstances make it necessary to tend the same part of each shift in corn at every rotation, one half the land would be in corn in the course of three years, and the balance only fallowed the oftener. If it could be enclosed in six fields, so much the better, as we might pasture the cattle, indispensably necessary to be kept, to more advantage. There should moreover be a timothy meadow, and two or three small lots, near the homestead, which would afford conveniences too apparent to be mentioned. The meadow should be on some wet piece of ground, which is found to be precarious in the growth of grain. It would be so much saved, but hay from high land is generally better. Clover, of late, has become a very uncertain crop; the great difficulty is in getting it to take, or live over the first summer—if the land be poor, it is killed by the sun, if rich, it is smothered by the thickness of the wheat. I am decidedly of opinion, that it should be sowed in the Fall, immediately after the wheat; or if this be rolled in plaster, and only harrowed, it may be mixed with it, and sowed

together. Timothy succeeds best, when sowed in the Fall, and clover, being equally hardy, would, I should think, do equally well. It should never be touched by the tooth, or hoof, until it blooms, and not then before the blossoms shall have become dead. One half the clover is generally destroyed by turning stock into the stubble field, it being either bit into the ground, or rooted up, and the other half is so trampled, as to be nearly good for nothing. The recommendation that land be tilled only once in six years in corn, may excite surprise after the opinion previously advanced, that this crop might be so managed, as 'not to injure it at all.' But, it must be recollected, I never supposed that tending land repeatedly, at short intervals, would make it rich; I only imagined, that the ground might remain *in statu quo* as to fertility: but, since our object is to improve—to make it better, we may certainly do it much quicker by covering it with grass, and turning this under every two or three years, than by sowing it in any grain. Besides, one sixth of an estate is generally as much as the farmer on it can plant in time, and cultivate properly.

Fallowing early in the spring for wheat, with a view to plough again before sowing is, without the ground be immensely poor, a very bad plan; even in that case it had as well, or better, be put in corn. Wheat on Fallow, is generally better than on corn ground; but it is only on such fallow as is made in the fall, and which has had the benefit of a summer's covering with clover, or some other grass which may be subdued by a single ploughing. Blue grass, though admirable both as an improver of the soil, and a food for cattle, should never be fallowed, because, being a hardy indignant, (if I may use such a word) it cannot be extirpated by such slight tillage. Between what is generally termed "Summer fallow," and corn land wheat, there is not often any striking difference: It is frequently in favour of the corn-field, from the superior working which the ground must have, early in the season, for the production of that crop. But the fallow, notwithstanding, sometimes has the ascendancy; this, however, will not be unaccountable when we remember, that although the corn land shall have been better prepared in the spring and summer, it is invariably sowed later than fallow, and sowed in amongst the standing corn, in the most slovenly manner imaginable. No plant is superior, or with the same labour, equal to corn, as a preparator for small grain. If the soil be foul with briars, broom sedge, or blue grass, and I may add *blue thistles*, they never can be extruded, until it shall have passed, what is generally supposed to be, the ordeal of corn cultivation. For this reason, in the commencement of a good system of farming on a rough estate, as much of this grain should be raised as possible.—But, after the whole surface shall have had the advantage of this eradicator of pests, the quantity may be razed to what has been previously recommended. The way of making wheat on corn-land, which I would advise, is this: after the corn shall have been taken off, or stacked in the manner designated in my last, let the wheat be sowed at the rate of from five pecks to two bushels to the acre, and covered with a large three horse harrow, the tines of which should be at least nine inches clear of the frame. If, upon examination, it be found not to have been well done, the operation should be repeated. If the field be covered with crop grass or fox-tail, which so much impedes the movement of the shovel plough, all the better. These grasses, by the harrow, will be drawn level with the earth, and the wheat will be found to germinate much quicker amongst it, than where the land is clean.—It also prevents the ground's freezing in a great measure, and, is, in fact, equal to a slight top dressing with manure.

The depth of covering wheat should only be such as to insure its coming up. By harrowing fallow much of the grain is left partly exposed on the surface, but even then a very slight rain would be sufficient for its germination; and this way of covering fallow I have always observed to be superior to shovelling. When a field is well clothed with grass, the heavy dews, which fall at that time of the year, are

quite sufficient to produce the desired result. We should commence fallowing as soon after harvest as practicable—the month of August is the proper time. The harrow should follow the ploughs in the same way, and for the same reasons, that were given on the preparatory cultivation of corn. It should then be harrowed in, and all the low places drained with a plough, having two mould-boards made for the purpose. This is also a very necessary business in the corn field, for it is not practicable or possible to ditch every part of a flat field so completely, that all the superabundant water may run off, which would otherwise destroy the wheat, during its almost torpid state in the winter.

Not the least advantage attendant on the proposed plan of cultivating corn, is the decidedly superior manner in which small grain may be both sowed, and managed afterwards. It is a very necessary precaution to observe, occasionally, that no water be damaged, so as to drown the wheat; for though a stiff soil, retentive of moisture, be best adapted to the growth of this plant, it has a dainty stomach, and will not bear cloying.

This seems to be a proper place for saying a little on the subject of Ditching. It is generally too much, and in many sections altogether neglected. The strongest land is, of consequence, in many instances altogether profitless. If high land, which has the smallest tendency to retain too much moisture, were ditched, it would be of incalculable advantage. The instant that more water falls on land, than it can easily retain in solution, without there be a near vent, it becomes very pernicious. Deep ploughing enables it to absorb much more than it otherwise would do; but, after all, there is frequently more than can be well accommodated. Many soils, where no water ever stands, are so robbed, as to be unfit for cultivation. If all lands of the above description were judiciously ditched, the additional quantity of crops raised, in a few years, would be an ample remuneration for the cost, and it would be a permanent improvement, not only during our own lives, but for our posterity. Cutting, stacking, and threshing or treading of wheat, are operations generally so well understood, as to require but few directions. I would, however, observe, that the plan of sheaving, though handed down from father to son, from the days of the patriarchs, is not the better for its age, and is attended with too much inconvenience to be worthy of being pursued. It is certainly a very neat way of doing the work, but it requires, at the busiest of all seasons, too much labour, and is besides too wasteful. Four cradles would require eight hands to rake and bind—two to carry the wheat together—and one to shock; making in all eleven attendants—and, when the grain becomes very ripe, a great deal is shattered out by tying the bundles. If it be put up loose, four hands will rake after four cradles; and, as they proceed, throw it together in heaps, so as to dispense with the necessity of making it an exclusive work to carry it to the shock. One will do to shock, and another will be sufficient to glean after them as fast as they advance: here we have only six attendants, (a little more than half that are required in the old way,) and the field is gleaned to boot. The wheat can also be much better secured in the field, than when tied, as it turns the rain as well as a timothy hay stack. The manner of shocking is very simple. You first take up as much as can be grasped in the arms, and tie it about a foot from the heads, then set this bundle firm on the ground, place the wheat around it in the shape of a sugar-loaf, and finish with a cap on the top. Two bushels is enough, and the best quantity to put in one shock. If they are well made, even though they should stand until Christmas, the rain will not penetrate more than half an inch; and if the straw be green or damp, there is not the smallest danger of its moulding, when put up as fast as it is cut. When it is bundled, I have frequently seen it necessary to take down the shock and open the sheaves to prevent its heating. Securing Wheat loose, requires a little additional labour in stacking; but that is done at a time when we generally have force to spare, or at

least, when we are not so busy as at harvest. When wheat is threshed out with a machine, it takes one good hand to untie the bundles; this might be saved.

I now proceed on the subject of manuring. The best way of using all wheat straw which may be more than sufficient for the feeding of cattle, is to haul it out as soon as convenient and cover the land about four inches thick: It should then remain at least one winter and summer before it be ploughed in, and longer if practicable. I have found by actual experience that this is the easiest way of improving land of any within the compass of a farmer's means. One load will cover more ground, and do more good, than four when decomposed. Vegetable substances improve in two ways; by intermixing with, and becoming a component part of the soil, and by facilitating the action of the inherent principles of amelioration which all land contains, and which, of itself, would soon enrich them, were it not for the countervailing influence of atmospheric attraction. Straw affords protection in a superior degree, to any thing at our disposal, but as an actual manure it is next to nothing. It has also a great capacity for retaining moisture, particularly if it be well saturated, and covered with dirt. I have seen fine potatoes made on very poor land, by planting them in chaff or straw, and covering them afterwards lightly with earth; but if there should succeed a very dry summer, or the potatoes be ridged up, so as to prevent the ingress of a sufficient quantity of water to wet the straw, the expectation of a good crop would be sorely disappointed. This fact goes far to prove the opinion correct, that water is the principle food of plants, for it cannot be supposed, that a small quantity of dry wheat straw would afford nourishment for a plentiful crop of potatoes, in a soil almost totally devoid of fertility, when we well know that the same quantity of straw decomposed, and used in that state, would not give us a crop worth gathering. Corn stalks are the best, and the most abundant offal for manure, which a farm produces. These should be hauled to the stable, around which there should be a well enclosed lot containing about the eighth part of an acre. As horses eat them with as much avidity as they do hay, little manure would be made, were they not fed in great waste. To fifteen horses, a wagon load may be given every day. They should never be stirred, or the stable cleaned out, until they are carried on the land in the spring. By throwing in a quantity every day, and spreading them over the whole surface, with the addition of a little straw, and the refuse of hay and cobs, the horses may be kept dry and comfortable, at the same time that decomposition progresses under their feet during the coldest weather. A pen should also be made around the cow shelter, and the stalks used in the same way. Neither horses nor black cattle should ever be permitted to go out of their respective enclosures during the winter, and the early part of spring, except to water; and if it be convenient to have this within the enclosures, they may not go out at all. They would do themselves no good, when nothing is to be got to eat, while the land would sustain much injury by being trampled when wet; and some manure would be lost, which might as well be saved. Early in the spring, all the manure which may have been accumulated, during the preceding winter, should be hauled out, and immediately covered with the plough, when in a half rotted state. If it be intended for clover or other grass, it should not be hauled out till vegetation shall have considerably advanced, as it would then be sooner protected from the influence of the atmosphere. Fine or well rotted manure should be permitted to remain on the surface because it acts quickest in that situation, and decomposition having in a great measure ceased, there is less danger of loss by exhalation; but long litter or manure, only half rotted as being more subject to evaporation, should be ploughed in directly. It is also believed that the heat evolved by the process of fermentation, is of great service to many soils, particularly to one in which clay predominates; the greatest difficulty attending the application of a large quantity

of manure, is the labour necessary to haul it out; so much so, that had we to carry it a mile, the expense of enriching an acre of poor land would amount to nearly as much as it would be worth after the operation. To obviate this inconvenience, Colonel Taylor recommends "ambulatory cow shelters," which, like most of the suggestions of that scientific agriculturist, is very commendable; but I think we might go still further and have ambulatory stables—temporary houses may be erected with logs or on forks, and with little trouble or cost, made very secure and comfortable.

By being located in the poorest part of the field designated the ensuing year for corn, they would afford advantages which require no comment. When there are large barns and stables under one roof, which are so much approved of in Pennsylvania, and admired every where, we generally see fine rich land adjacent, but the extreme edges of the farm in every direction, stand as sad witnesses of the fallacy of such an injudicious monopoly. All composts made in a mere artificial way, are believed to cost more than they are worth. On the subject of plaster of Paris, I feel much interested—I have used for the last four years about ten tons, annually. I have made various experiments, some of which have been very satisfactory as to its ameliorating tendency, and others as much the reverse. On the method of its action, there are almost as many opinions as there are persons that use it. It is certainly a very whimsical substance, about which we as yet know very little. I have frequently seen a considerable effect on the growth of clover and corn, but seldom, and less apparent in the latter than the former. I am much inclined, however, to think that it is of trivial importance. If it act by becoming a constituent part of the soil in which there may be a deficiency of that ingredient, there surely must be a "quantum sufficit," beyond which, its application would be prejudicial. If it be only a stimulant, it would require more discrimination in its use, than I fear is generally possessed by common farmers. All stimulants exhaust after their operation, and require larger doses after every application. If it possess a septic quality, it would only do that more rapidly, which would be effected as certainly though a little slower by unaided nature. If it act by attracting moisture, it can only be of service on very dry soils, which is generally, but not always the case. On a clover field we may calculate with considerable certainty, on at least a visible effect, but who can say that even then it pays for its cost? It appears to me, as regards the utility of this substance, if I may use an old adage, that it has been "all talk and no cider." It is certainly going fast out of repute, for whatever may be its virtues when repeatedly used, one fact seems to be accredited—by every body, that it is "no longer pipe, no longer dance." In the golden age which existed a few years since, we might afford to use it for fashion's sake, though never adequately paid for its cost, but now "*Tempora mutantur et nobis cum illis mutantur est*."—We must retrench our expenditures, and "cut our garments according to the cloth," or in a few years, wear none at all. Vegetable manure is the most ready, cheap and convenient auxiliary which we can prudently employ for the re-animation of exhausted earth, and although it be probably impossible to apply it in such quantities as to enrich at once the whole surface of farms when poverty predominates, we may at least spread it out partially so as to enliven the soils and give a start to the ample agents of nature which would then proceed in geometrical progression to the most desirable results. Manure, like the stiletto of an Irishman, never misses fire. It is a panacea to all soils, no matter what may be their constituent parts. The most barren sand bank, or stubborn clay under heaven, would surrender at discretion, if placed within pistol shot of a dung battery. Whether the management of the writer of these papers would be found, on examination, to coincide exactly with his directions to others, is a matter of but little importance; it is enough in this place to say, it is his wish that it should: But if the reverse were true, it would be only the addition of another proof to the many which already stand on record, that

"it is much easier to give instruction, than to set example."

R. B. BUCKNER.

VINT-HILL, VIRGINIA, May 1st, 1821.

BRITISH PEERAGE.

The number of Peers of Great Britain, independent of the Bishops, is exactly 500; of these 56 have been ennobled as courtiers, 19 as younger branches of nobility, 39 as statesmen, 16 by diplomatic, 17 by naval, 57 by military, 39 by legal services, 59 by marriage, and 227 by the influence of wealth, &c. There are 92 bachelors, 64 widowers, and 344 who are married. Of the 408 and widowers, 99 are without children; and the remaining 309 have now living, 755 sons, and 703 daughters. The paternal descent of 156 peers can be traced to the conquest, or 11th century; that of 51 to the 12th century; 52 to the 13th; 35 to the 15th; 60 to the 16th; 59 to the 17th and 3 to the 18th century; the genealogies of the remaining 49, cannot be traced with sufficient accuracy to warrant insertion. The ancestors of 78 of the Peers, whose descent can be traced to the conquest, were settled in England previous to that event; the other 79 came over with the conqueror. Of the ancestors of the remainder, 31 have emigrated to this country since that period—1821.

TO COOK RICE MILK.*

To three quarts of boiling milk, put a tea cup full of rice which has been carefully picked and washed—cook it slowly, but constantly, for four hours before the fire, in an uncovered vessel—season it with butter, sugar, and cinnamon or nutmeg. The milk must be new, otherwise it will curdle before the rice is cooked.

* The Editor can safely recommend this to Housewives.

Cure for the Tooth-ache.

Take a nutgall, break it, put a small piece of the inside into the hole of the tooth, and after being there for half an hour, or an hour, it must be removed, when it will be found to be covered with a white matter—and a fresh piece of nutgall is to be put into the tooth so long as any matter shall be found to come away—and when that ceases to be the case, the cure will be found to be effected.

The Elder Tree.

This tree possesses the following properties: 1st, saving turnips from the fly—2d, preserving wheat from the yellows—3d, preserving fruit from the blight—4th, preserving cabbage plants from caterpillars—5th, preserving peach trees, &c. from worms. The dwarf elder has the most potent effluvia, and it requires no other trouble than to strew the leaves over the ground, or to strike fruit trees with a twig.

Remedy in case of swallowing Pins, Fish, or other sharp Bones.

Administer four grains of tartar emetic, in warm water, and let the patient drink the white from six eggs, which coagulating upon the stomach before the tartar operates, envelopes the

pin, or bone, and it is brought up. A person who swallowed several pins was made to throw up the whole by the above method.

Saving of Fuel.

The Franklin Stove has been objected to by many, as they consume too much wood. This is easily remedied, by laying a false back with brick, within eleven inches of the front at bottom, and five at top, which any mason's boy can do in half an hour, this will save ONE HALF the wood, and afford double the heat.

Disease among Horses and Cattle.

A dreadful disease has lately made its appearance among horses and cattle. It affects the tongue in a most singular manner, causing it to become almost entirely raw. The method of cure is to make a strong decoction of briar root, parsimon bark, white oak bark and sassafras bark—add to which, after being well boiled, copperas, salt-petre, alum, and assaetida—make it pretty strong; then with a swab, wash the tongue and rub it pretty hard four or six times a day. Bleeding is also good, and drenching with a tea made of spice wood, poplar bark, and sassafras, adding a little salt-petre. This is a pretty certain cure.

It is said that other species of animals are subject to take it.

Sore tongue in Horses—a pretty certain cure.

Dissolve 2 ounces copperas, and 2 ounces of alum in a pint of strong vinegar; swab the mouth and tongue with the solution, until the disease is removed; then dissolve honey and alum in vinegar, and use it in the same way to heal the tongue.

THE FARMER.

BALTIMORE, FRIDAY, JULY 13, 1821.

PRICES CURRENT.

Flour from the wagons, \$4 50—Whiskey from do. 26 cts. exclusive of barrel—Hay, per ton, \$17—Straw, do. 7 a \$8—Wheat, White, 87 a 90 cents—Red, do. 85 a 87 cents—Corn, 40—Oats, 27 a 30—Rye, 40 a 41—Cod fish, per quintal, wholesale, \$3, retail do. \$4—New-England Beans per bushel, \$1 12½—ditto Peas, 75 cents—Plaster in stone \$6 per ton—do, ground, \$1 35 per barrel, 33 cts. per bushel, \$8 per ton—New-Orleans sugar, \$9 to 12 50—Muscovado, do. \$9 a 12—American White Lead, \$12 50—Ground do. 13 a 14—Linseed Oil, 75 cents—Peathers, 40 a 45 cents—Potatoes, per bushel, 6½ a 7 5 cents—Shad, new, \$6—Herrings, \$2 a \$2 25, declining—Fine Salt, 55 cents per bushel—Ground Alum do. 55 a 60—St Ubes, 60—Cadiz, 50 a 55—Turks Island, 75—Live Cattle, \$5 a 5 50—Beef, 8 to 10 cents—Hams, 10 a 12 cents—Middlings, 17 cents—Butter, 25 cents—Peas 50 cents per bushel—Eggs, 12½ cents—Cheese 8 a 10 cents per pound—Tar \$1 50—Turpentine, 1 87½ a 2—Pitch 2½—Rosin, common, \$1½, bright do. \$3 per barrel—Varnish, 25 cents—Spirits Turpentine, 33 cents per gallon—Cotton, (good Upland) 14 a 15 cents; very dull—Rice 3 a 3½ cents—Ship and Flooring Plank, \$25 a 27—shingles, best 6½ a \$7, common, \$3 to 4½ per M. Maryland Tobacco.—Fine tobacco, no sales—Common do. \$4 50, sales. We have heard of no sales of Virginia Tobacco.

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